rarity of giant sized mahseers in Kumaun waters.

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21. MALE IN COPULATION WITH DEAD FEMALE OF *HIEROGLYPHUS NIGROREPLETUS* BOL.

Uvarov (1928) described abnormal pairing among locusts. He mentioned that many males copulate with dead females. Husain and Mathur (1945) stated that pairing of male with dead female locust is a physical impossibility. Bhatia (1959) observed eight instances of mature males of Desert Locust, *Schistocerca gregaria* Forsk. copulating with females which had died the previous night. Katiyar (1962) observed males of *Aularches punctatus* Drury and *Parahieroglyphus bilineatus* Bol., to ride and copulate with dead females. He also observed a few females of *P. bilineatus* in coitus with dead males.

During the normal course of breeding of *Hieroglyphus nigrorepletus* Bol. males were noticed to continue copulation even after the death of female. This appears to be the first report of such phenomenon in *H. nigrorepletus.*

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22. MATERNAL CARE IN *OXYRHACHIS TARANDUS* FABR. (MEMBRACIDAE: HOMOPTERA)

Oxyrhachis tarandus is a common species of membracid usually found on *Acacia arabica* and *Cassia fistula*. It is a brown insect with the posterior pronotal process extending backwards upto the posterior end of the ab- and fulgorids. The female of this species anterolateral processes of the pronotum are in the form of short tricarinate horns.

This treehopper caught our attention during field surveys for collecting the membracids and fulgorids. The female of this species usually sits on the egg mass laid by it on the twig of *Acacia arabica*. While laying eggs the female cuts the bark longitudinally and inserts eggs into the twig in two parallel rows on either side of the slit and placing them at an acute angle to the main axis. The micropylar end of the egg is exposed.

Careful examination of the tree twigs revealed many females sitting over the eggs. The tree was marked and the females were observed closely for several days. After about three weeks the little ones were out and on account of their gregarious habit they grouped a little above the egg shells and the mother had moved a little away from the egg mass but was still amidst the young treehoppers.

The mother always sat tightly perched over the egg mass least disturbed by approaching animals or man. It did not move away even if the twig was shaken violently. It could only be removed from its place through a physical push. If any object was gently directed at it with the purpose of inducing it to move away from the egg mass, it usually retaliated and tried to push it aside with its pronotal horns. The female was observed to get extremely agitated on sighting minute hymenopterous egg parasites which threatened to parasitise the eggs. The female used to push aside the hymenopterous egg parasites with the help of its pronotal horns and by the movement of wings and legs.

It was apparent that the mother never leaves its eggs even temporarily till they are hatched and it may also be assumed that the brood